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CLAIMS

1. A method, comprising:

providing an InfiniBand architecture subnet having a plurality of nodes, wherein

5 each of the plurality of nodes has a priority value and a globally unique identifier;

providing each of the plurality of nodes with a subnet manager;

ranking each of the plurality of nodes according to the priority value and the
globally unique identifier; and

10 selecting if the subnet manager is included in a set of standby subnet managers
based on the priority value and the globally unique identifier of each of the plurality of
nodes.

2. The method of claim 1, wherein selecting comprises selecting if the subnet
manager is included in the set of standby subnet managers up to a limit value.

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3. The method of claim 1, wherein ranking each of the plurality of nodes
comprises ranking each of the plurality of nodes from a highest priority value to a lowest
priority value, and wherein if the priority value for a first node is identical to the priority
value of a second node, further ranking the first node and the second node from a lowest
20 globally unique identifier to a highest globally unique identifier.

4. The method of claim 3, wherein selecting comprises selecting the subnet
manager to be included in the set of standby subnet managers by selecting the subnet
manager from each of the plurality of nodes with a highest set of priority values.

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5. The method of claim 3, wherein selecting comprises selecting the subnet
manager to be included in the set of standby subnet managers by selecting the subnet
manager from each of the plurality of nodes with a lowest set of globally unique
identifiers.

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6. The method of claim 1, wherein ranking each of the plurality of nodes
comprises ranking each of the plurality of nodes from a lowest priority value to a highest

priority value, and wherein if the priority value for a first node is identical to the priority value of a second node, further ranking the first node and the second node from a highest globally unique identifier to a lowest globally unique identifier.

5 7. The method of claim 6, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a lowest set of priority values.

10 8. The method of claim 6, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a highest set of globally unique identifiers.

15 9. The method of claim 1, wherein ranking each of the plurality of nodes comprises ranking each of the plurality of nodes from a highest priority value to a lowest priority value, and wherein if the priority value for a first node is identical to the priority value of a second node, further ranking the first node and the second node from a highest globally unique identifier to a lowest globally unique identifier.

20 10. The method of claim 9, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a highest set of priority values.

25 11. The method of claim 9, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a highest set of globally unique identifiers.

30 12. The method of claim 1, wherein ranking each of the plurality of nodes comprises ranking each of the plurality of nodes from a lowest priority value to a highest priority value, and wherein if the priority value for a first node is identical to the priority

value of a second node, further ranking the first node and the second node from a lowest globally unique identifier to a highest globally unique identifier.

13. The method of claim 12, wherein selecting comprises selecting the subnet
5 manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a lowest set of priority values.

14. The method of claim 12, wherein selecting comprises selecting the subnet
10 manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a lowest set of globally unique identifiers.

15. An InfiniBand architecture subnet, comprising:
a plurality of nodes, wherein each of the plurality of nodes has a priority value and
15 a globally unique identifier;
a set of standby subnet managers; and
a subnet manager for each of the plurality of nodes, wherein the plurality of nodes
are ranked according to the priority value and the globally unique identifier, and wherein
the subnet manager from each of the plurality of nodes is selected to be included in the set
20 of standby subnet managers based on the priority value and the globally unique identifier of each of the plurality of nodes.

16. The InfiniBand architecture subnet of claim 15, wherein the subnet manager
from each of the plurality of nodes is selected to be included in the set of standby subnet
25 managers up to a limit value.

17. The InfiniBand architecture subnet of claim 15, wherein the plurality of nodes
comprise a first node and a second node, wherein each of the plurality of nodes is ranked
from a highest priority value to a lowest priority value, and wherein if the priority value
30 for the first node is identical to the priority value of the second node, the first node and the second node are further ranked from a lowest globally unique identifier to a highest globally unique identifier.

18. The InfiniBand architecture subnet of claim 17, wherein the subnet manager is selected from each of the plurality of nodes with a highest set of priority values.

5 19. The InfiniBand architecture subnet of claim 17, wherein the subnet manager is selected from each of the plurality of nodes with a lowest set of globally unique identifiers.

10 20. The InfiniBand architecture subnet of claim 15, wherein the plurality of nodes comprise a first node and a second node, wherein each of the plurality of nodes is ranked from a lowest priority value to a highest priority value, and wherein if the priority value for the first node is identical to the priority value of the second node, the first node and the second node are further ranked from a highest globally unique identifier to a lowest globally unique identifier.

15 21. The InfiniBand architecture subnet of claim 20, wherein the subnet manager is selected from each of the plurality of nodes with a lowest set of priority values.

20 22. The InfiniBand architecture subnet of claim 20, wherein the subnet manager is selected from each of the plurality of nodes with a highest set of globally unique identifiers.

25 23. The InfiniBand architecture subnet of claim 15, wherein the plurality of nodes comprise a first node and a second node, wherein each of the plurality of nodes is ranked from a highest priority value to a lowest priority value, and wherein if the priority value for the first node is identical to the priority value of the second node, the first node and the second node are further ranked from a highest globally unique identifier to a lowest globally unique identifier.

30 24. The InfiniBand architecture subnet of claim 23, wherein the subnet manager is selected from each of the plurality of nodes with a highest set of priority values.

25. The InfiniBand architecture subnet of claim 23, wherein the subnet manager is selected from each of the plurality of nodes with a highest set of globally unique identifiers.

5 26. The InfiniBand architecture subnet of claim 15, wherein the plurality of nodes comprise a first node and a second node, wherein each of the plurality of nodes is ranked from a lowest priority value to a highest priority value, and wherein if the priority value for the first node is identical to the priority value of the second node, the first node and the
10 globally unique identifier.

27. The InfiniBand architecture subnet of claim 26, wherein the subnet manager is selected from each of the plurality of nodes with a lowest set of priority values.

15 28. The InfiniBand architecture subnet of claim 26, wherein the subnet manager is selected from each of the plurality of nodes with a lowest set of globally unique identifiers.

29. An InfiniBand architecture node comprising a computer-readable medium
20 containing computer instructions for instructing a processor to perform a method of limiting a set of standby subnet managers, the instructions comprising:
 providing an InfiniBand architecture subnet having a plurality of nodes, wherein each of the plurality of nodes has a priority value and a globally unique identifier;
 providing each of the plurality of nodes with a subnet manager;
25 ranking each of the plurality of nodes according to the priority value and the globally unique identifier; and
 selecting if the subnet manager is included in the set of standby subnet managers based on the priority value and the globally unique identifier of each of the plurality of nodes.

30. The InfiniBand architecture node of claim 29, wherein selecting comprises selecting if the subnet manager is included in the set of standby subnet managers up to a limit value.

5 31. The InfiniBand architecture node of claim 29, wherein ranking each of the plurality of nodes comprises ranking each of the plurality of nodes from a highest priority value to a lowest priority value, and wherein if the priority value for a first node is identical to the priority value of a second node, further ranking the first node and the
10 identifier.

32. The InfiniBand architecture node of claim 31, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a highest set of
15 priority values.

33. The InfiniBand architecture node of claim 31, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a lowest set of
20 globally unique identifiers.

34. The InfiniBand architecture node of claim 29, wherein ranking each of the plurality of nodes comprises ranking each of the plurality of nodes from a lowest priority value to a highest priority value, and wherein if the priority value for a first node is
25 identical to the priority value of a second node, further ranking the first node and the second node from a highest globally unique identifier to a lowest globally unique identifier.

35. The InfiniBand architecture node of claim 34, wherein selecting comprises
30 selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a lowest set of priority values.

36. The InfiniBand architecture node of claim 34, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a highest set of globally unique identifiers.

37. The InfiniBand architecture node of claim 29, wherein ranking each of the plurality of nodes comprises ranking each of the plurality of nodes from a highest priority value to a lowest priority value, and wherein if the priority value for a first node is identical to the priority value of a second node, further ranking the first node and the second node from a highest globally unique identifier to a lowest globally unique identifier.

38. The InfiniBand architecture node of claim 37, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a highest set of priority values.

39. The InfiniBand architecture node of claim 37, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a highest set of globally unique identifiers.

40. The InfiniBand architecture node of claim 29, wherein ranking each of the plurality of nodes comprises ranking each of the plurality of nodes from a lowest priority value to a highest priority value, and wherein if the priority value for a first node is identical to the priority value of a second node, further ranking the first node and the second node from a lowest globally unique identifier to a highest globally unique identifier.

41. The InfiniBand architecture node of claim 40, wherein selecting comprises selecting the subnet manager to be included in the set of standby subnet managers by

selecting the subnet manager from each of the plurality of nodes with a lowest set of priority values.

42. The InfiniBand architecture node of claim 40, wherein selecting comprises
- 5 selecting the subnet manager to be included in the set of standby subnet managers by selecting the subnet manager from each of the plurality of nodes with a lowest set of globally unique identifiers.